

WHAT IS CLAIMED IS:

1 1. A system, comprising:
2 a circuit; and
3 a regulator circuit operable to selectively provide a current supplied by a system
4 power source to the circuit at a first current value and at a second current value.

1 2. The system according to claim 1, wherein the regulator circuit comprises a
2 plurality of current sources.

1 3. The system according to claim 2, wherein at least one of the plurality of current
2 sources is selectively activated by an enable signal.

1 4. The system according to claim 3, wherein the plurality of current sources form
2 mirror branches of a current mirror.

1 5. The system according to claim 4, wherein the at least one of the plurality of
2 current sources comprises a first transistor and a second transistor connected in series to the first
3 transistor, wherein a control terminal of the first transistor is coupled to a control terminal of a
4 transistor in a reference leg of the current mirror and a control terminal of the second transistor is
5 coupled to the enable signal.

1 6. The system according to claim 3, further comprising a delay component
2 responsive to the enable signal and operable to delay the activation of the at least one of the
3 plurality of current sources relative to the enable signal being in an enabling state.

1 7. The system according to claim 6, wherein the delay component is coupled
2 between the enable signal and the regulator circuit.

1 8. The system according to claim 6, wherein the delay component delays one of a
2 rising edge and a falling edge of the enable signal by an amount that is greater than a delay of the
3 other of the rising edge and the falling edge of the enable signal.

1 9. The system according to claim 1, wherein the circuit includes a memory device.

1 10. The system according to claim 9, wherein the memory device and the regulator
2 circuit both receive an enable signal, the current value provided by the regulator circuit being
3 based upon a value of the enable signal.

1 11. A system, comprising:
2 a circuit with an enable input for selectively enabling an operation to be
3 performed in the circuit; and
4 a regulator circuit coupled between a system power source and the circuit and
5 having a control input for controlling the amount of supply current available to the circuit
6 wherein the enable input of the circuit and the control input of the regulator circuit are coupled
7 one to the other.

1 12. The system according to claim 11, wherein the regulator circuit comprises a
2 plurality of current sources, at least one of the plurality of current sources is activated by an
3 enable signal coupled to the control input of the regulator circuit.

1 13. The system according to claim 12, wherein the plurality of current sources form
2 mirror branches of a current mirror.

1 14. The system according to claim 12, wherein the at least one of the plurality of
2 current sources is adapted for receiving the enable signal.

1 15. The system according to claim 12, further comprising a delay component operable
2 to delay the deactivation of the at least one of the plurality of current sources relative to the
3 circuit being disabled.

1 16. The system according to claim 15, wherein the delay component is coupled
2 between the enable signal and the regulator circuit.

1 17. The system according to claim 15, wherein the delay component delays one edge
2 of the enable signal relative to a second edge of the enable signal.

1 18. The system according to claim 12, wherein the at least one of the plurality of
2 current sources comprise a first transistor and a second transistor connected in series to the first
3 transistor, and a control terminal of the second transistor is coupled to the enable signal.

1 19. The system according to claim 11, wherein the circuit includes a memory device,
2 and the enable input is a chip enable input of the memory device.

1 20. The system according to claim 19, wherein the memory device and the regulator
2 circuit receive the same enable signal.

1 21. A method, comprising the steps of:
2 receiving an enable signal; and
3 supplying a current to a circuit having a current level that is based on a value of
4 the enable signal.

1 22. The method according to claim 21, wherein the step of supplying the current
2 further comprises the step of:
3 activating any one or more of a plurality of current sources in a regulator circuit
4 so as to control the current supplied to the circuit, based on the value of the enable signal.

1 23. The method according to claim 22, wherein the step of supplying the current
2 further comprises the step of delaying current source deactivation relative to the current source
3 activation.

1 24. The method according to claim 21, further comprising the step of selectively
2 enabling an operation in the circuit based on the value of the enable signal.

1 25. The method according to claim 24, further comprising the steps of delaying the
2 step of supplying a current relative to the step of selectively enabling an operation.

1 26. The method according to claim 24, wherein the step of supplying the current
2 further comprises the steps of:
3 supplying a first current level when the enable signal is a first value; and
4 supplying a second current level, different from the first current level, when the
5 enable signal is a second value.

1 27. A method, comprising the steps of:
2 coupling a system power source to a circuit; and
3 selectively limiting the current supplied by the system power source to the circuit
4 to any of at least two distinct non-zero current levels.

1 28. The method according to claim 27, wherein the step of selectively limiting the
2 current comprises the steps of:
3 coupling a regulator circuit having a plurality of current sources between the
4 system power source and the circuit, operable to supply the current to the circuit; and
5 selectively activating one or more of the plurality of current sources so as to limit
6 the current supplied to the circuit to any of the at least two distinct non-zero current levels.

1 29. The method according to claim 28, wherein the step of selectively activating
2 further comprises the steps of:
3 selectively activating the one or more of the plurality of current sources so as to
4 limit the current supplied to the circuit to a first current level when an enable signal is a first
5 value; and
6 selectively activating one or more of the plurality of current sources so as to limit
7 the current supplied to the circuit to a second current level when the enable signal is a second
8 value.

1 30. The method according to claim 28, further comprising the step of delaying the
2 current source deactivation relative to the current source activation.

1 31. The method according to claim 27, further comprising the step of:
2 receiving an enable signal at the circuit for selectively enabling an operation by
3 the circuit, wherein the distinct non-zero current level supplied by the system power source is
4 based upon the enable signal.

1 32. The method according to claim 31, wherein the enable signal selectively enables a
2 memory access operation to occur.